

PS2-GC50-R/N SPECIFICATIONS



PS2 GC50 Rare Gas and Nitrogen Gas Purifier

General Description

The PS2 GC50 purifier is a getter-based purifier designed for the purification of carrier gases for gas chromatography (GC) and other analytical applications. Outlet impurity levels for O₂, H₂O, CO, CO₂, H₂, CH₄ and N₂ are reduced to low parts per billion (ppb) levels or below.

The patented getter alloy operated at elevated temperatures, removes impurities by forming irreversible chemical bonds. Impurities will not be released under any circumstances when the purifier is operated within specification.

PS2 GC50 Features

- *Deep blue anodized exterior maintains a 45° C surface temperature*
- *Efficient ceramic fiber insulation with encapsulated heater coil*
- *20 μm sintered filter on inlet and outlet*
- *1/8" Swagelok fittings (Optional 1/4" VCR)*
- *Replaceable cartridge*

Process Gas Specifications

Specification	SPG Standard
Max Flow Rate: (maximum purified gas delivered)	200 sccm (0.2 slpm)
Nominal Flow Rate:	200 sccm (0.2 slpm)
Minimum Flow Rate: (for purity measurement)	20 sccm
Maximum Inlet Pressure:	10.3 bar (~150 psig)
Maximum Pressure Drop @6.2 bar inlet pressure and maximum rated flow:	< 1.0 psid

Inlet Gas Temperature Range	0° – 35° C (32° – 95° F)
Outlet Gas Temperature (maximum)	< 50° C (122° F)

Facilities Requirements – Electrical	
Specification	SPG Standard
Installed Power (customer to specify voltage at time of order)	50 W (120 and 220 options)

Facilities Requirements – General	
Specification	SPG Standard
Ambient Temperature Range	0° – 35° C (32° – 95° F)

Analytical Specifications	Nitrogen		Rare Gas	
	Inlet (ppb)	Outlet (ppb)	Inlet (ppb)	Outlet (ppb)
Impurities				
O ₂	3000	< 10	2000	< 10
H ₂ O	2000	< 10	2000	< 10
CO	1000	< 10	500	< 10
CO ₂	1000	< 10	500	< 10
H ₂	1000	< 10	100	< 10
CH ₄	500	< 50	300	< 10
N ₂	N/A	N/A	5000	< 10

General Purifier Specifications	
Purifier Height	23 cm (9 inches)
Purifier Width	10 cm (4 inches)
Purifier Weight	1.8 kg (4 pounds)
Feed Gas Inlet	1/8" Swagelok fittings (Optional ¼" VCR)

Purified Gas Outlet	1/8" Swagelok fittings (Optional 1/4" VCR)
Getter Bed Operating Temperature	350 ~ 400° C (662 ~ 752° F)
Heater Power Consumption	< 50 W Nominal/Maximum
Particle Filter	20 µm sintered filter on inlet and outlet
Gas Wetted Surface Finish	Up and Downstream of Getter Vessels = 304L SST, all welded construction